Goldman Sachs | Asset Management

Market Know-How | 2022: Edition 2

CATCH ME IF YOU CAN

Semiannual Insights and Implementation
Strategic Advisory Solutions

MACRO AND MARKETS OVERVIEW

MACRO

Regional divergence driven by varying inflation compositions, monetary policy, and growth

MARKETS

Heightened market volatility creates selective opportunities within and across asset classes

OUTLOOK AND SOLUTIONS

Geopolitics:

Short-Lived Shocks

Valuations:

Pricey, but Not Costly

Rates:

Problems and Solutions

Inflation:

Time to Cool Down

Alpha:

An Idea on IDEAs

Source: Goldman Sachs Asset Management. "Alpha" refers to returns in excess of the benchmark. "IDEAs" refer to a framework developed by Goldman Sachs Global Investment Research to identify companies considered to provide value creation and growth in a post-pandemic market cycle. Four categories exist in the framework: innovators, disruptors, enablers, and adapters. Definitions can be found in additional disclosures at the end of this document. Views and opinions are current as of June 2022, and may be subject to change, they should not be construed as investment advice. Economic and market forecasts presented herein reflect our judgment as of the date of this document and are subject to change without notice. These forecasts do not take into account the specific investment objectives, restrictions, tax and financial situation or other needs of any specific client. Actual data will vary and may not be reflected here. These forecasts are subject to high levels of uncertainty that may affect actual performance. Accordingly, these forecasts should be viewed as merely representative of a broad range of possible outcomes. These forecasts are estimated, based on assumptions, and are subject to significant revision and may change materially as economic and market conditions change. Goldman Sachs Asset Management has no obligation to provide updates or changes to these forecasts. Please see additional disclosures at the end of this document.

CATCH ME IF YOU CAN

Central banks and inflation are the two main actors in a play not seen in decades. After many unexpected twists and turns, inflation has continued to be a dominant theme, fueled by tight labor markets, supply chain dynamics, and geopolitical tensions. In the US, the Fed has credibly embarked on policy tightening to rein in price pressures. Elsewhere, other major central banks also stand ready to “catch” inflation, though with different policy paths relative to the US.

We believe the transition back to “normal” may not only invite continued market volatility but also potentially broaden investment opportunities, especially after valuation contraction in 1H 2022. We believe markets now offer a more compelling value proposition for long-term investors.

In this edition of the Market Know-How, we explore how investors may navigate the economic normalization, with emphasis on:

- Looking toward the destination, not the journey. While uncertainty may persist, strong fundamentals have strengthened the investment case within and across markets.
- Positioning for accelerated disruption. Consequently, we believe alpha may be better found in idiosyncratic, focused, and global portfolios.
- Elevating the importance of income to potentially better manage episodic volatility.
- Diversifying existing exposure with alternative investments to potentially access unique sources of returns and to reduce concentrated risks.

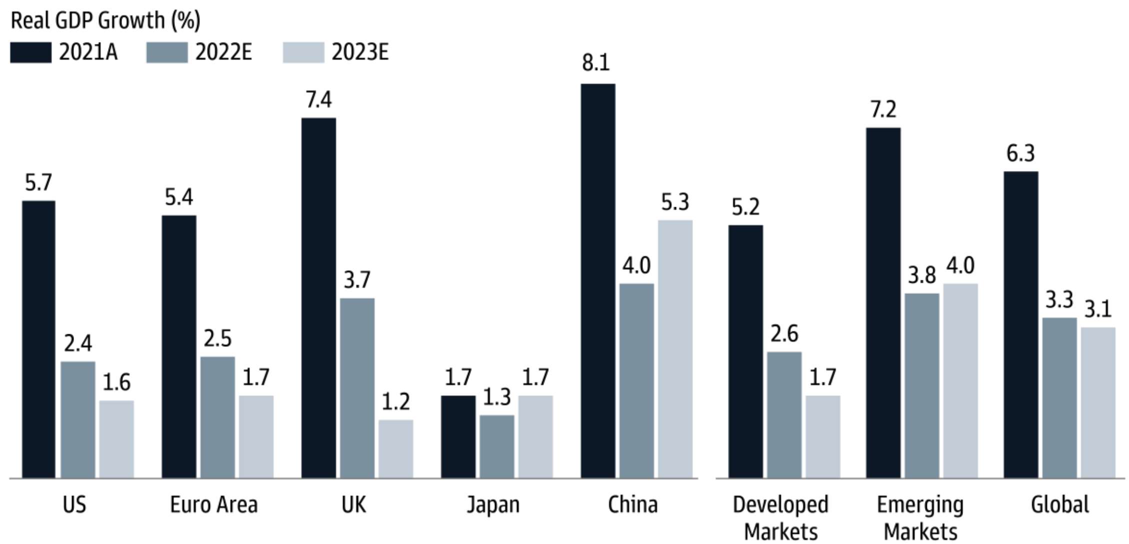
Source: Goldman Sachs Asset Management. “Fed” refers to the Federal Reserve. “Alpha” refers to returns in excess of the benchmark. Views and opinions expressed are for informational purposes only and do not constitute a recommendation by Goldman Sachs Asset Management to buy, sell, or hold any security. Views and opinions are current as of June 2022 and may be subject to change, they should not be construed as investment advice. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document.

MACRO

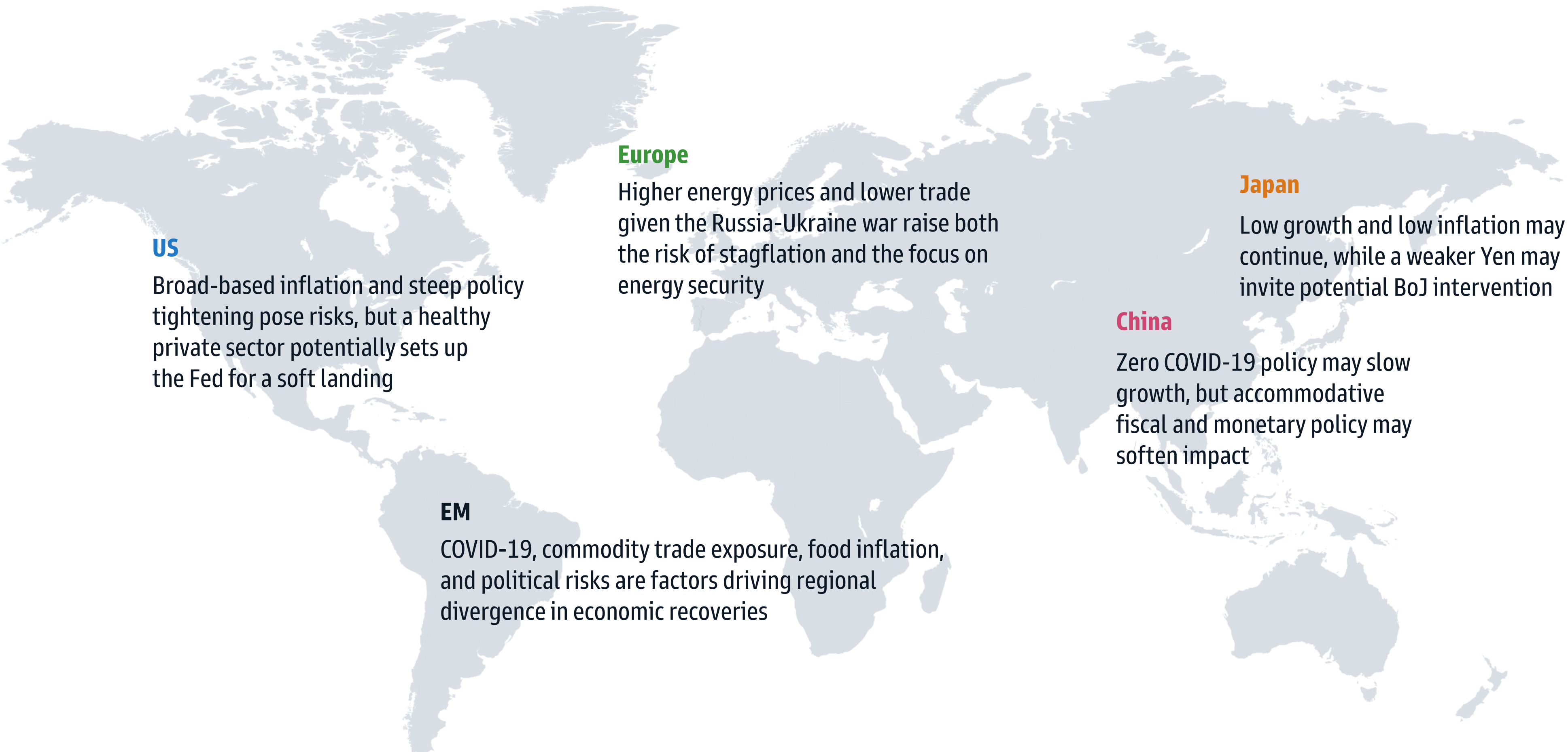
We believe the global economy will experience greater macro divergence in 2H 2022 as varying sensitivities to COVID-19, geopolitical spillovers, supply dynamics, and monetary policy drive diverse regional impacts. Elevated inflation, however, remains the key factor informing macro risk. We expect each region to prioritize controlling inflation, though levels of success in sustaining growth will likely vary.

Global Growth

We recognize growth risks are skewed to the downside while inflation remains elevated. But, we think the deceleration in growth reflects a move into a more sustainable expansion in both developed and emerging markets. A well-liquefied banking system, robust private sector balances, strong consumer demand, and relatively limited financial imbalances provide sources of economic stability in the midst of global uncertainty.



Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of May 31, 2022. "Real GDP" refers to Gross Domestic Product adjusted for inflation. "A" refers to actual figures year-over-year. "E" refers to estimates year-over-year. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**



US

Broad-based inflation and steep policy tightening pose risks, but a healthy private sector potentially sets up the Fed for a soft landing

Europe

Higher energy prices and lower trade given the Russia-Ukraine war raise both the risk of stagflation and the focus on energy security

Japan

Low growth and low inflation may continue, while a weaker Yen may invite potential BoJ intervention

China

Zero COVID-19 policy may slow growth, but accommodative fiscal and monetary policy may soften impact

EM

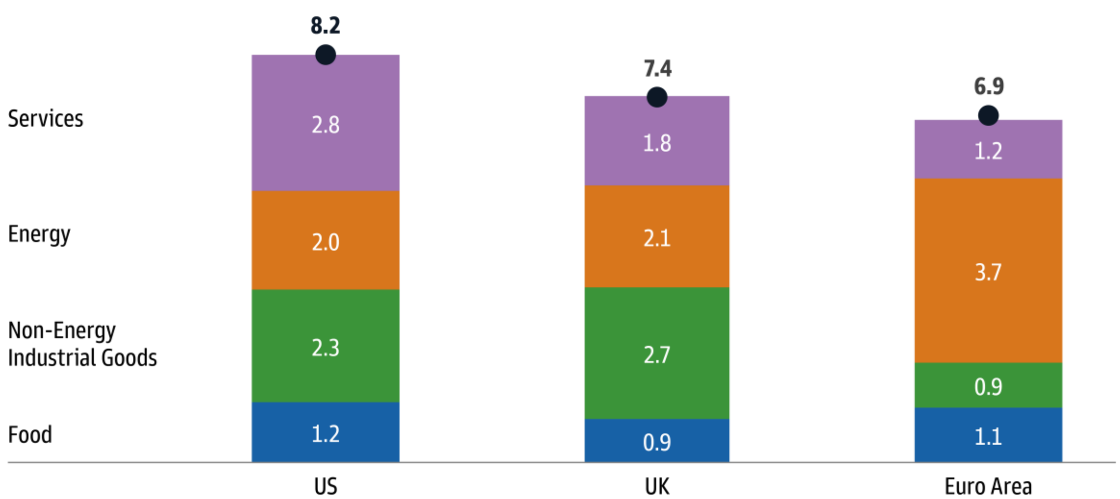
COVID-19, commodity trade exposure, food inflation, and political risks are factors driving regional divergence in economic recoveries

Source: Goldman Sachs Asset Management. Views and opinions are current as of June 2022, and may be subject to change, they should not be construed as investment advice. “Fed” refers to the Federal Reserve. “Soft landing” refers to a monetary policy tightening cycle that does not lead to a recession. “Stagflation” refers to an economic environment that consists of high inflation, low growth, and high unemployment. “BoJ” refers to the Bank of Japan. “EM” refers to emerging markets. Please see additional disclosures at the end of this document.

Inflation

Inflation across developed economies has become more persistent and broad-based, though the contributors to price pressures vary by region. We expect services to drive US prices as durable goods demand eases. In fact, inflation in supply-constrained goods categories may fall to zero on net by year-end. Meanwhile, we believe energy prices will remain the dominant reason for elevated Euro area inflation as supply risks from the Russia-Ukraine war persist.

Year-on-Year Contributions to CPI (3-Month Average, %)



Monetary Policy

Restrictive monetary policy is on the radar for most central banks, though the pace of tightening remains dictated by the regional inflation and growth mix. We believe the Fed will continue to lead the charge in front-loading rate hikes, alongside balance sheet runoff. The ECB may also hike multiple times this year. Meanwhile, we believe the PBoC will continue its accommodative stance to support growth in the face of COVID-19 disruptions, though it is likely past the majority of its rate cuts.

Central Bank	Expected Policy Rate Direction	Forecasted Terminal Policy Rate (%)	Expected Balance Sheet Actions	Potential Macro Risks
Fed	↑	3.25–3.50 (by 2022)	$1.5T passive and possible active runoff in next 3 years	Tightening leads to hard landing
BoE	↑	2.50 (by 2023)	Passive runoff with clarity on active sales likely forthcoming	Inability to tame broad inflation
ECB	↑	1.50 (by 2023)	Net APP to end before Q3 but remain flexible	Recession amid higher energy prices
BoJ	↔	-0.10 (by 2022)	Continued JGB purchases	Inability to control yield curve
PBoC	↓	2.10 (by 2022)	Accommodative OMO and standing lending facilities	Excessive leverage

Top Section Notes: Haver Analytics and Goldman Sachs Asset Management. As of May 31, 2022. Chart shows the average of annual inflation contributions in February 2022 to April 2022 for the US, UK and Euro area. "CPI" refers to consumer price index. Bottom Section Notes: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of May 31, 2022. "Fed" refers to the Federal Reserve. "BoE" refers to the Bank of England. "ECB" refers to the European Central Bank. "BoJ" refers to the Bank of Japan. "PBoC" refers to the People's Bank of China. "Terminal Policy Rate" refers to the theoretical policy rate at which the stance of a central bank's monetary policy is neither accommodative nor restrictive. "Net APP" refers to the net asset purchase program by the European Central Bank. "JGB" refers to Japanese government bonds. "OMO" refers to open market operations. "Balance sheet runoff" refers to reduction in the size of a central bank's balance sheet. "Hard landing" refers to a central bank monetary policy tightening cycle that leads to a recession. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document.

Recession

Geopolitical uncertainty, fiscal drag, and aggressive monetary policy have contributed to a global economic slowdown. While recession risks have risen, absolute levels remain relatively low. Importantly, monetary policy has not been the sole contributor of recessions in decades. The strength of the private sector—US households, corporations, and banks—means the Fed today has a greater probability of achieving a soft landing than it did in the past. Even if a recession were to occur, we would expect it to be mild in nature.

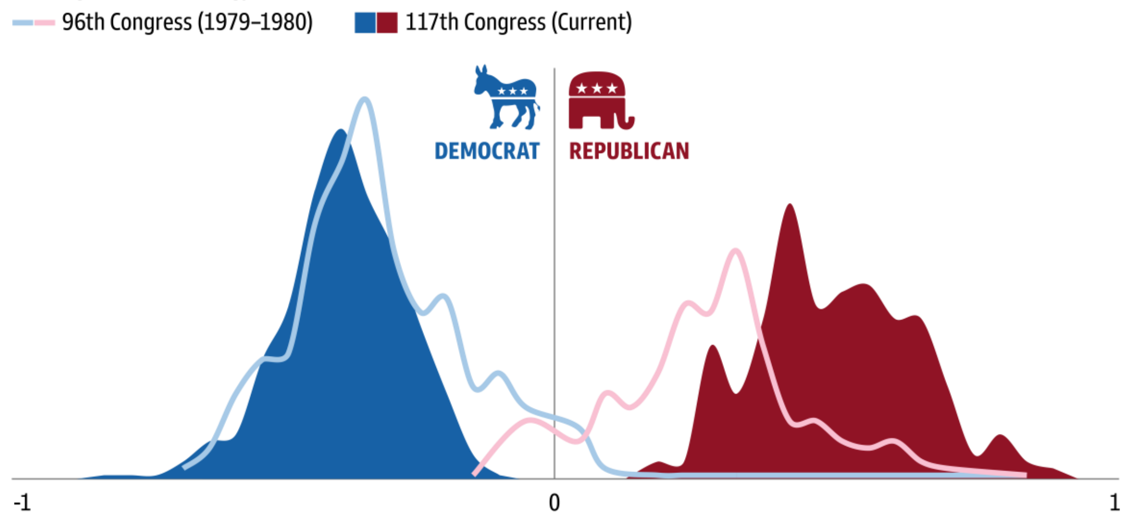
Key Contributors to US Recessions

Recession	Fiscal	Industrial	Monetary	Oil	Financial	Pandemic
February 1945	■					
November 1948		■				
July 1953	■					
August 1957			■			
April 1960			■			
December 1969	■		■	■		
November 1973			■	■		
January 1980			■			
July 1981			■			
July 1990			■	■	■	
March 2001					■	
December 2007					■	
March 2020						■

Elections

US midterm elections bring uncertainty, but we think their direct market implications are likely to be muted. Historically, the opposition party has performed well in midterms, a trend that may continue given current polling and macro conditions. Regardless of the outcome, we expect relatively slim Congressional majorities to limit the scope of large legislative changes as polarization has increased both within and across parties. In fact, the ideological overlap between Democrats and Republicans has dissipated in recent decades, further raising legislative hurdles.

US Congressional Ideology Score



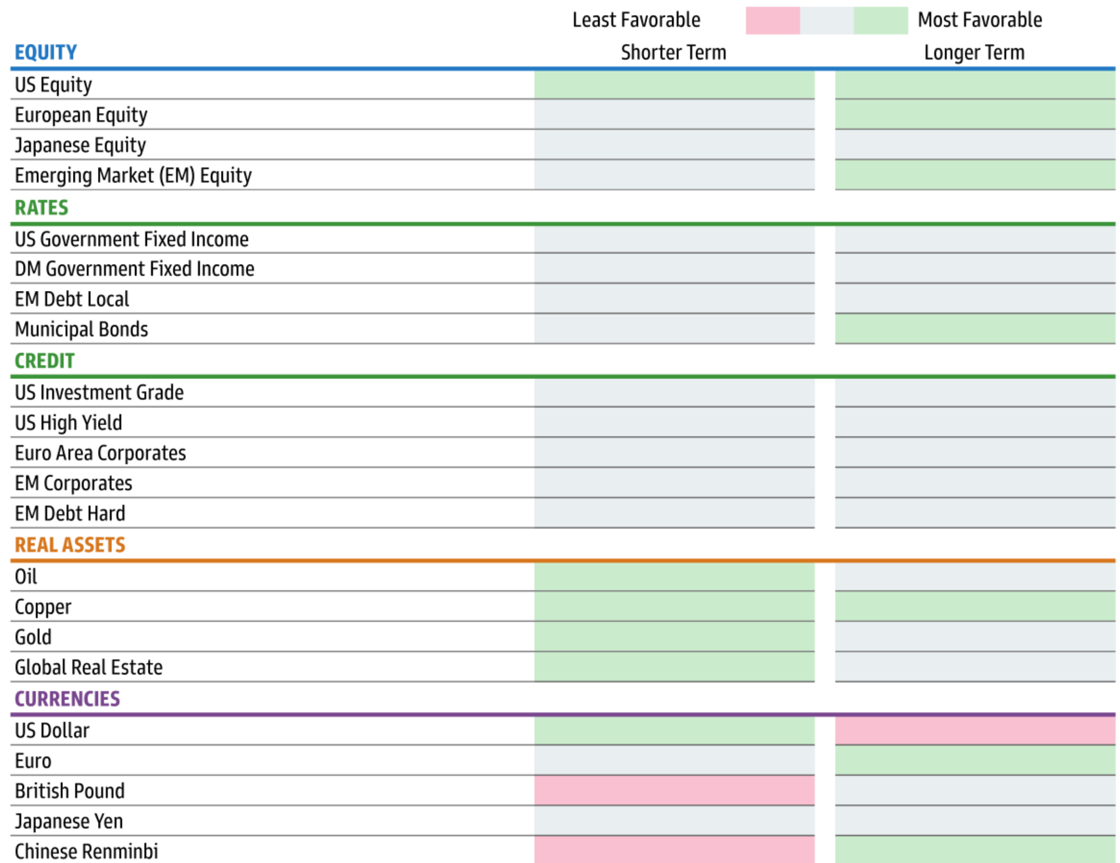
Top Section Notes: Goldman Sachs Investment Research and Goldman Sachs Asset Management. As of May 31, 2022. For illustrative purposes only. Chart shading identifies key contributors to past recessions. "Soft landing" refers to a central bank monetary policy tightening cycle that does not lead to a recession. Bottom Section Notes: VoteView and Goldman Sachs Asset Management. As of May 31, 2022. Chart shows VoteView's ideological score for all Democrats and Republicans in the 96th Congress and current Congress, based on voting record. A score of -1 represents more liberal ideology. A score of 1 represents more conservative ideology. For illustrative purposes only. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document.

MARKETS

This market cycle begins with a different mix of macro ingredients than the last one, likely pointing to moderating returns. Specifically, rising rates and already strong fundamentals may mean that the beta-driven returns have already been sourced. However, we think the opportunity set remains robust across geographies and may broaden beyond traditional asset classes. We believe investors can still find alpha, but global reach, precise implementation, and even a bit of patience may be required.

Asset Class Outlook

We are modestly pro-risk, with a tactical tilt towards real assets, though we acknowledge the risks to our view with humility. Within equities, we think earnings strength in developed markets will support both prices near-term and our conviction of global alpha in the coming years. Bonds may struggle amid higher inflation, but the search for yield now finds many matches. Lastly, structural imbalances in commodity markets remain unresolved and will likely sustain elevated prices in the near-term. Across markets, we expect volatility to continue until investors find clarity in the macro backdrop.



Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of May 31, 2022. "Beta-driven returns" refer to returns derived from passive exposure to the markets through an index, as opposed to returns from active stock picking. "Alpha" refers to returns in excess of the benchmark. "Shorter term" refers to less than 12 months. "Longer term" refers to 1-5 years. For illustrative purposes only. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document.

Key Insights

EQUITIES

Equity market volatility is likely to persist until the growth/inflation mix improves, particularly if TINA momentum fades on the back of tighter financial conditions and rising real yields. While equity valuations have de-rated materially, both earnings and margins have remained resilient, pointing to now improved return symmetry for stocks. Directionally, we prefer ex-US equities given their lower valuations and duration.

RATES

Global yields are likely to continue moving higher at different speeds, informed by regional central bank policies. We believe the front end of the US Treasury curve offers favorable return potential relative to duration and a strong income buffer against further Fed repricing. Investors with time horizons greater than their duration will likely see improving carry and roll opportunities.

MUNIS

Municipal bonds have come under pressure amid broader rate volatility. In the near-term, technicals may remain challenged due to heavier supply and outsized outflows. Still, underlying credit performance has remained resilient, and we continue to see a strong upgrade cycle. Going forward, we believe technicals may improve on the back of the combined tailwinds of summer redemption season and expected negative net issuance.

CREDIT

Growth and inflation concerns may drive credit spreads wider, but the recent rise in rates likely limits duration risk going forward. Healthy balance sheets across the credit spectrum may prevent meaningful credit deterioration, as expected default rates remain grounded. For high yield credit, outsized issuances from the energy sector suggest improved cash flow amid elevated commodity prices.

REAL ASSETS

Structural tailwinds are likely to continue bolstering real assets. We believe continued Western reopening will support commodity demand, and the spillovers from the Russia-Ukraine war will constrain supply, the combination of which may keep prices elevated. Global economic slowdown represents a key risk, but we think fundamentals can offset macro tightening. Likewise, real estate and infrastructure may benefit from inflation pass-through, increasing the sustainability of revenues and margins amid a more challenging growth and financing environment.

CURRENCIES

Variation in regional inflationary, monetary policy, and virus backdrops may continue to drive currency movements. For the US dollar, its safe-haven status and exposure to aggressive Fed tightening suggest near-term strength, while global de-Dollarization trends and its high valuation suggest long-term weakness. Meanwhile, the euro is challenged by economic spillover from the Russia-Ukraine war but supported by fiscal spending and European integration.

Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of May 31, 2022. "TINA" refers to "there is no alternative," a phrase indicating preference for equities. "Duration" refers to interest rate sensitivity. "Carry" refers to the difference between the yield on a longer maturity bond and the cost of borrowing. "Roll" refers to the incremental return earned when a bond's price increases as the time left to maturity decreases. "Safe haven" refers to investments whose value is expected to maintain or increase in times of market turbulence. "Fed" refers to Federal Reserve. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document.

Equities

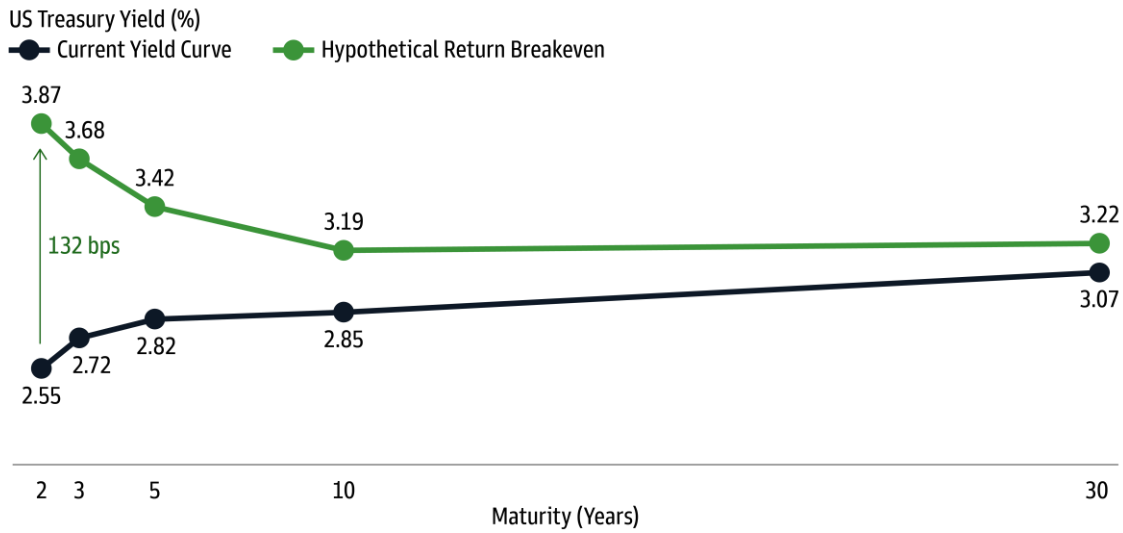
There are no shortage of risks facing investors, with rising real yields and decelerating growth most top of mind. Still, investors may take solace from history, where the S&P 500 averaged 12-month returns of 8% in this type of environment. Patient investors can outlast episodes of volatility from the risks of today, in our view. We believe companies across the globe with defendable margins, relatively stable growth, and quality balance sheets may be best positioned to withstand these risks.

Average 12-Month S&P 500 Return Since 1975 (%)

	Real 10-Year Treasury Yield		
US Real GDP	Falling	Stable	Rising
Accelerating	19	16	19
Unchanging	14	15	12
Decelerating but growing	13	9	**8**
Decelerating and contracting	-3	-20	-19

Rates

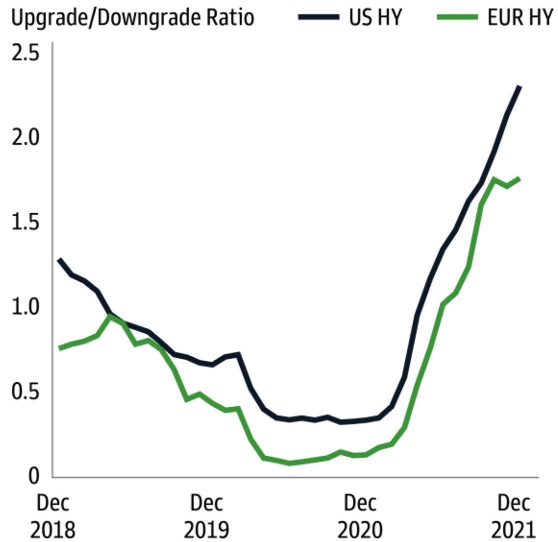
Yields across the US Treasury curve have jumped at the fastest pace in decades, with the 2y-10y spread inverting earlier in the year. We think some of the damage may be done as hawkish monetary policy has become consensus, and we see value at the front-end of the curve as a hedge to potential further increases. The significant yield and limited duration risk at short maturities mean that investors can withstand more yield pick-up before seeing red. As for longer maturities, we think yield increases may moderate.

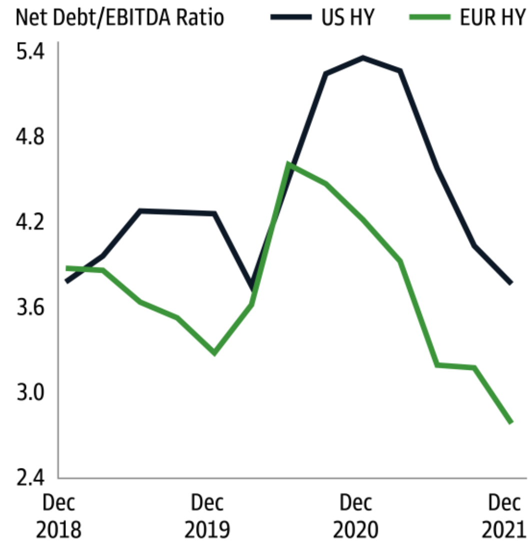


Top Section Notes: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of November 23, 2021. Chart shows S&P 500 returns over rolling twelve-month periods under different growth and interest rate regimes. Real GDP Growth is measured by the US Current Activity Indicator. Real 10-Year Treasury yields are based on historical data from 1997 to 2021. Data from 1975 to 1996 is derived from Goldman Sachs Global Investment Research estimates. Average returns during periods of decelerating, but growing real GDP growth and rising real 10-Year Treasury yields are highlighted to reflect the current environment. Bottom Section Notes: Bloomberg and Goldman Sachs Asset Management. As of May 31, 2022. Chart shows US Treasury yields for the 2-, 3-, 5-, 10- and 30-year maturities as of May 31, 2022. Please see the hypothetical return breakeven definition in the additional disclosures at the end of this document. Basis points (bps) refer to a unit represented by one hundredth of one percent. "Hawkish" refers to less accommodative monetary policy. "Duration risk" refers to the sensitivity of a bond's price to changes in interest rates. "Red" refers to loss on investment. For illustrative purposes only. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**

Credit

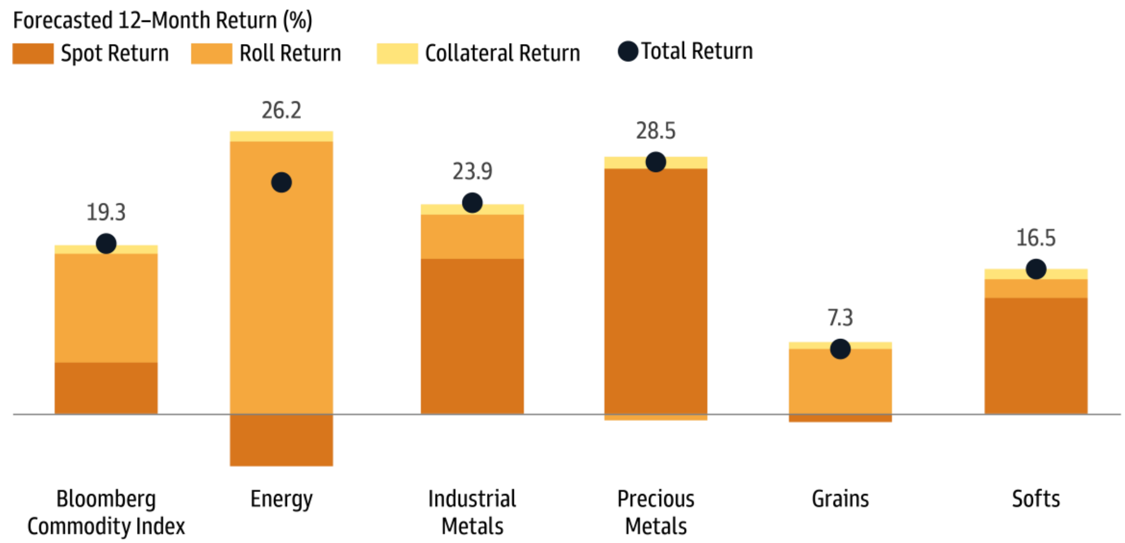
Credit spreads have modestly widened to start the year, despite waning investor demand for fixed-rate structures. We think strong balance sheets and lasting impacts of liquidity can keep default rates low. For context, just 4% of US HY debt matures in 2022 or 2023, with companies having capitalized on generous financing terms during the peak of the pandemic. Should the macro backdrop deteriorate, we would be wary of riskier parts of the capital structure.





Commodities

After lagging other risk assets for much of the past decade, commodity markets have been on a hot streak, leaving investors wondering whether the outperformance can continue. We think there is still room to run, even if spot price appreciation has already driven strong returns. With many commodity markets currently in backwardation, patient investors can benefit from roll return amid unprecedented physical tightness. As such, we see unresolved supply-demand imbalances supporting returns in the next year.



Top Section Notes: Moody's, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management. As of December 31, 2021. "Upgrade/Downgrade Ratio" refers to the number of companies that are being upgraded from high yield to investment grade divided by the number of companies that are being downgraded from investment grade to high yield. "Net Debt/EBITDA Ratio" refers to net debt over earnings before interest, taxes, depreciation, and amortization. "HY" refers to high yield. Bottom Section Notes: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of May 31, 2022. Chart shows Goldman Sachs Global Investment Research's 12-month forecasts for Bloomberg Commodity Index and select index components. "Softs" refer to commodities that are grown rather than mined, including sugar, coffee, cotton, and cocoa. Please see return definitions in the additional disclosures at the end of this document. "Backwardation" describes a market condition in which spot prices for an underlying asset are greater than futures prices. The economic and market forecasts presented herein are for informational purposes as of the date of this document. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**

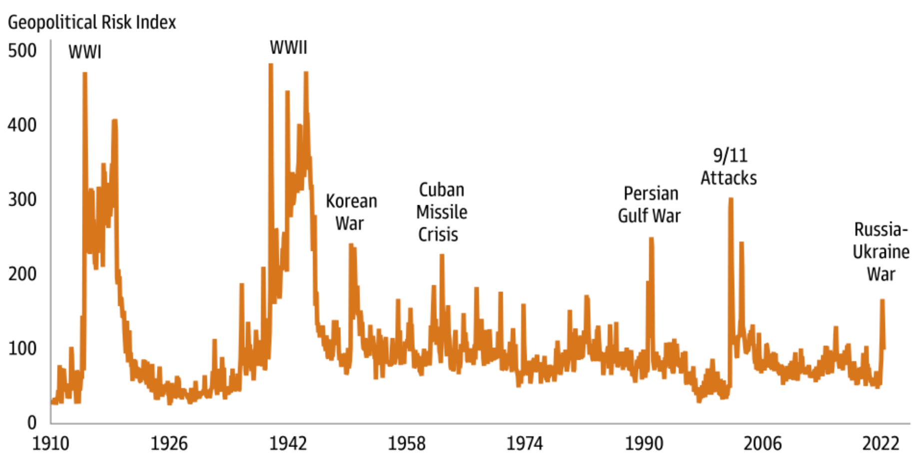
GEOPOLITICS

OUTLOOK

Short-Lived Shocks

Geopolitics has become top of mind this year, with the Federal Reserve's geopolitical risk index surging on the back of the Russia-Ukraine war. Still, we believe that not all sources of volatility are created equally. Global equity markets have historically been more resilient through these unexpected geopolitical shocks than they have been in recessions. While we do not expect current geopolitical risks to cause a recession, the wide array of potential spillover effects may lend to greater left-tail risks to growth. Investors may consider staying invested and diversifying portfolios with core fixed income, liquid alternatives, income strategies, and real assets.

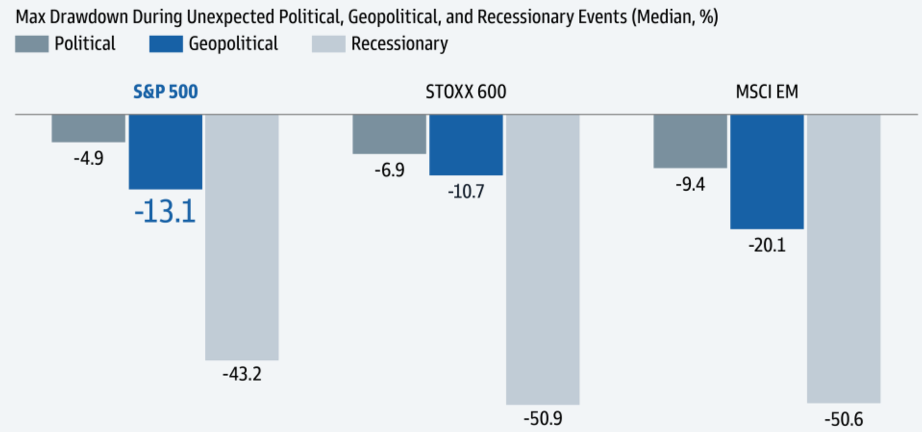
Highest Risk Since 9/11



Source: Caldara, Iacoviello, and Goldman Sachs Asset Management.

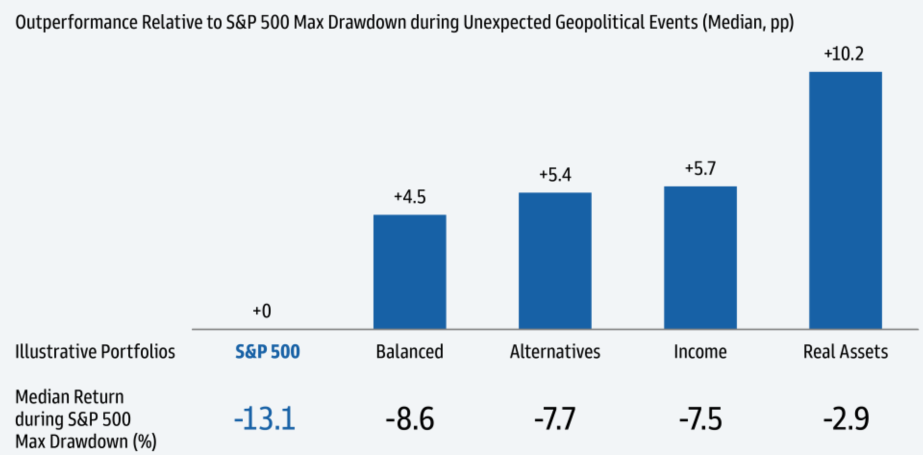
SOLUTIONS

Political Noise, Geopolitical Shocks, and Recessionary Bears



Source: Bloomberg and Goldman Sachs Asset Management.

Balancing Results During Geopolitical Shocks



Source: Bloomberg and Goldman Sachs Asset Management.

Bottom Left Section Notes: As of June 1, 2022. The average index value from 1900-2019 is 100. Top Right Section Notes: As of May 31, 2022. "Max Drawdown" refers to the largest equity drawdown since the start of each event. "Political" events refer to Winston Churchill's election upset, Harry Truman's election upset, Donald Trumps' election upset, the 2018 Italian Election, and the 2018 Brazilian Election. "Geopolitical" events refer to World War II, the Gulf War, the September 11th attacks, the US-China Trade War, the COVID-19 pandemic, and the Russia-Ukraine War. "Recessionary" events are based on US recessions from 1970 to 2010. Bottom Right Section Notes: As of May 31, 2022. Illustrative portfolio returns are hypothetical based on the historical returns of the underlying indices. Analysis for the top right and bottom right charts are subject to data availability going back to the inception date of each index. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**

VALUATIONS

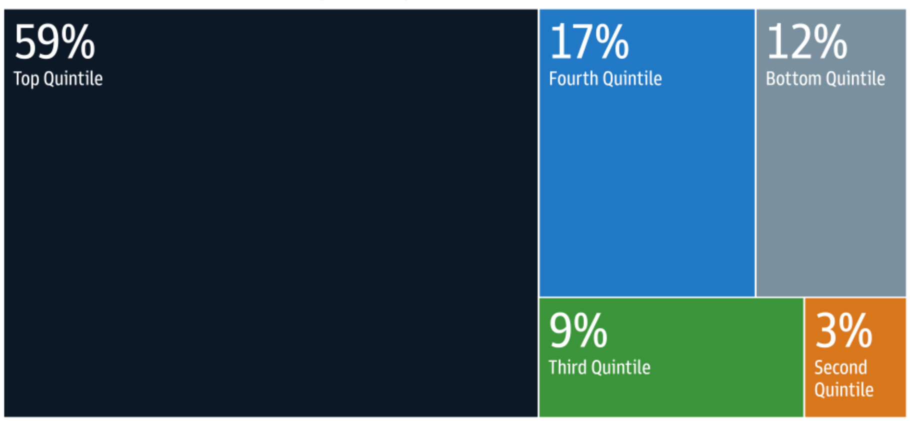
OUTLOOK

Pricey, but Not Costly

Equities have traded expensively for most of recent history, but fair value is rarely known at the time of purchase. In recent decades, investors paid a greater premium for expected earnings amid lower tax rates, enhanced global integration, and declining real bond yields. The operating environment may be evolving, but we believe the median and absolute S&P 500 CAPE ratios can stay elevated because valuations, and the factors driving them, have demonstrated themselves to be adaptive, not mean-reverting. Still, we expect a period of multiple contraction from earnings catching up rather than prices catching down, with such periods having delivered positive equity returns in the past.

Expensive Today, Expensive Tomorrow

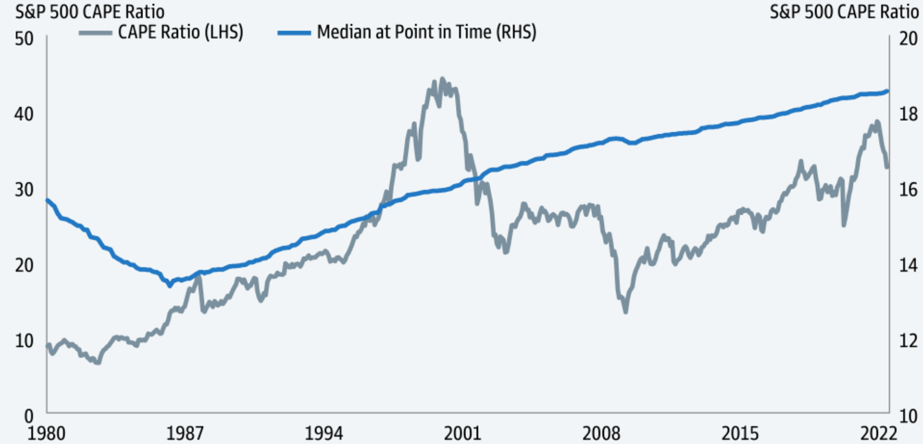
Percent of Time in Each Valuation Quintile (Since 1980)



Source: Robert Shiller, Bloomberg, and Goldman Sachs Asset Management.

SOLUTIONS

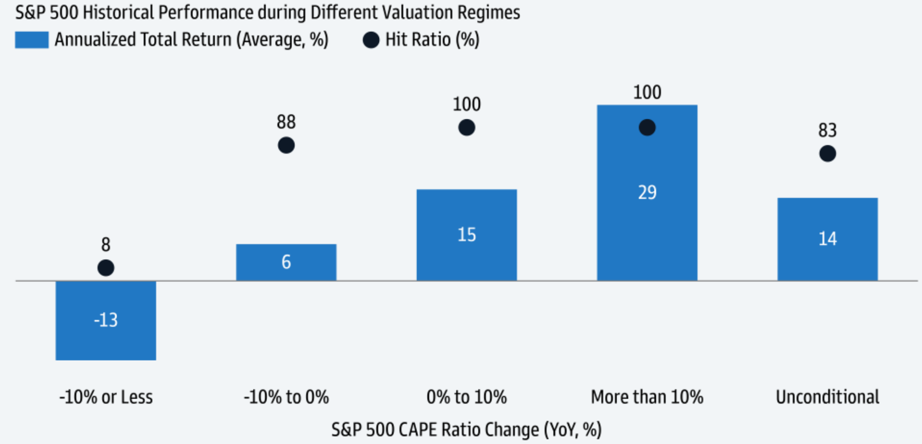
Expensive is Relative



Source: Robert Shiller, Bloomberg, and Goldman Sachs Asset Management.

Multiple Contraction Doesn't Mean Negative Returns

S&P 500 Historical Performance during Different Valuation Regimes



Source: Robert Shiller, Bloomberg, and Goldman Sachs Asset Management.

Bottom Left Section Notes: As of May 31, 2022. Chart groups S&P 500 CAPE Ratios by percentile since 1980, with data beginning in post-war period (January 1945). "Top Quintile" refers to the most expensive quintile. Top Right Section Notes: As of May 31, 2022. Chart shows median S&P 500 CAPE Ratio, with analysis beginning in post-war period (January 1945), accumulating more data with each month, and results displayed starting in January 1980. "CAPE Ratio" refers to the Cyclically-Adjusted Price-to-Earnings ratio. Bottom Right Section Notes: As of May 31, 2022. Chart shows the total return of the S&P 500 Index during different rolling year-over-year changes in the S&P 500 CAPE Ratio since 1980. "Hit Ratio" refers to percent of time the return is positive. "Unconditional" refers to the total data set across all S&P 500 CAPE Ratio changes. For illustrative purposes only. **Past performance does not guarantee future results, which may vary.**

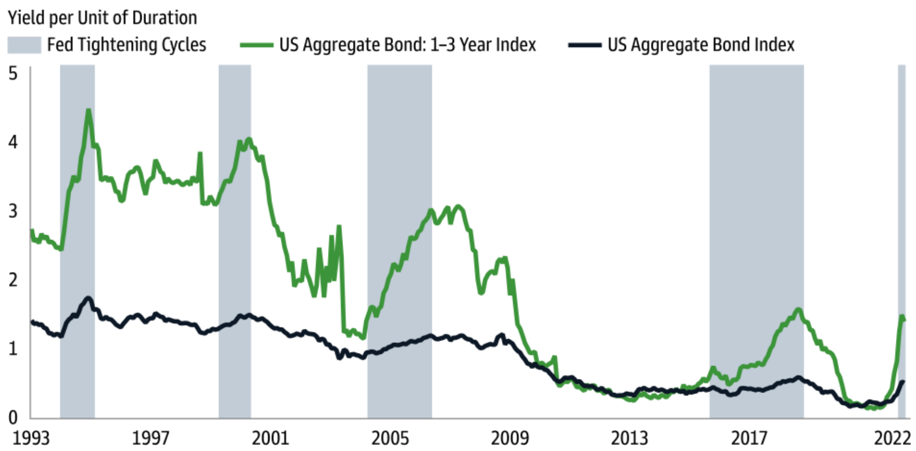
RATES

OUTLOOK

Over the Hump

Rates have repriced at the fastest speed in years. But, we believe the worst may be behind us as markets now embrace Fed policy guidance and its inflation-fighting priorities. With today's higher rates, the short- and long-end of the yield curve look appealing again, offering higher income and potentially improved hedging capabilities, respectively. For long-term investors, we believe duration risk will be counterbalanced by attractive coupons available through credit. Beyond bonds, we believe risk assets may deliver positive, though moderating, returns even amid a tightening cycle as long as the expansion endures and private sector balance remains intact.

Yield Benefits of Staying Short



Source: Bloomberg and Goldman Sachs Asset Management.

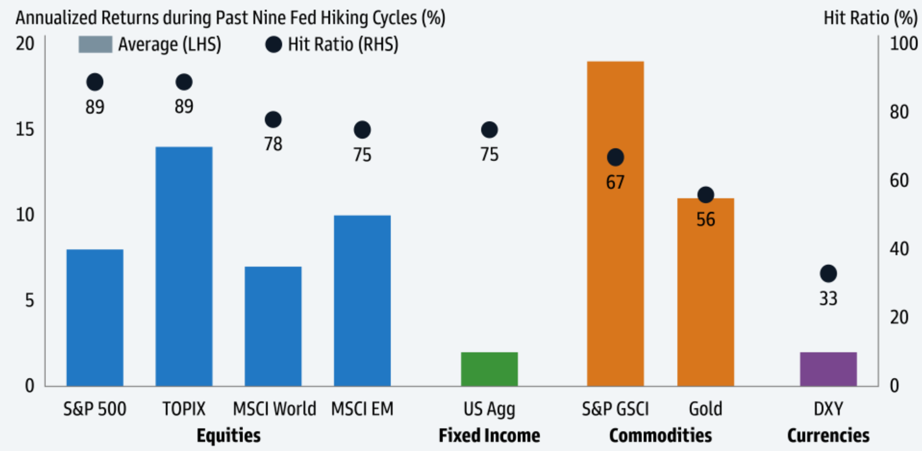
SOLUTIONS

Rate Reactions

Asset Class	Sector	What We Expect
Equities	US	Earnings resilience with above-trend GDP growth
	Non-US	Cyclical advantage from value tilt
Fixed Income	Short-Term	More income potential with limited rate sensitivity
	Long-Term	Buffer to equity market volatility
Commodities		Higher cost of carry, though structural demand keeps prices elevated
Currencies		Relative value opportunities from policy rate differential

Source: Goldman Sachs Asset Management.

Fed Reception



Source: Bloomberg, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management.

Bottom Left Section Notes: As of May 31, 2022. "Yield" refers to the yield to worst. "Duration" refers to the sensitivity of bond prices to a change in interest rates. Top Right Section Notes: As of May 31, 2022. "GDP" refers to Gross Domestic Product. Please see additional disclosures at the end of this document. Bottom Right Section Notes: As of May 31, 2022. Chart shows the total index returns during nine Federal Reserve (Fed) hiking cycles since 1972 for all indices except MSCI EM and Bloomberg US Aggregate Bond Index. Total return and hit ratio analyses for MSCI EM and Bloomberg US Aggregate Bond Index reflect past four and eight Fed hiking cycles, respectively, based on data available at index inception. Please see the relevant hiking cycles used at the end of this document. "Hit Ratio" refers to percent of time the return is positive. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**

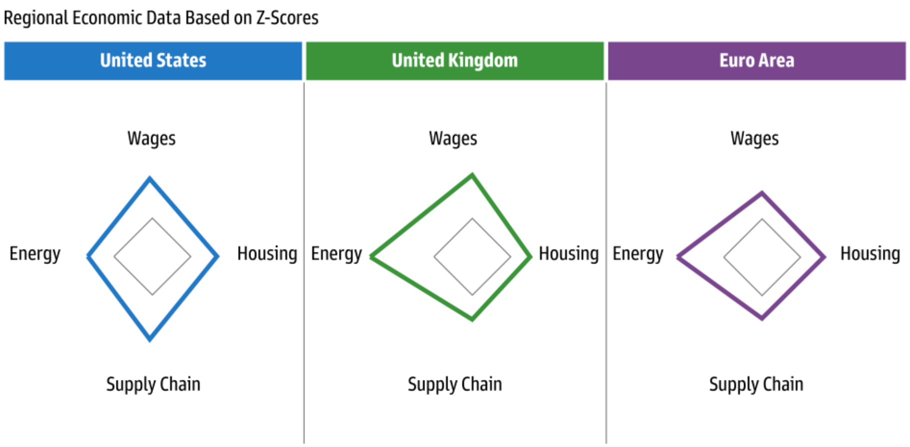
INFLATION

OUTLOOK

Hot Inflation, Time to Cool Down

Price pressures have strengthened globally. Such a sudden, synchronized jump in inflation hasn't been seen in decades. The causes vary across countries but the persistence of some factors such as global supply chain issues and energy trade disruptions are likely to keep inflation elevated for longer. However, the direction may turn due to base effects and normalizing supply-demand imbalances, with implications for asset prices. While recognizing nuances that are present today, cooling inflation from a high level has historically been associated with positive real returns for both equities and bonds.

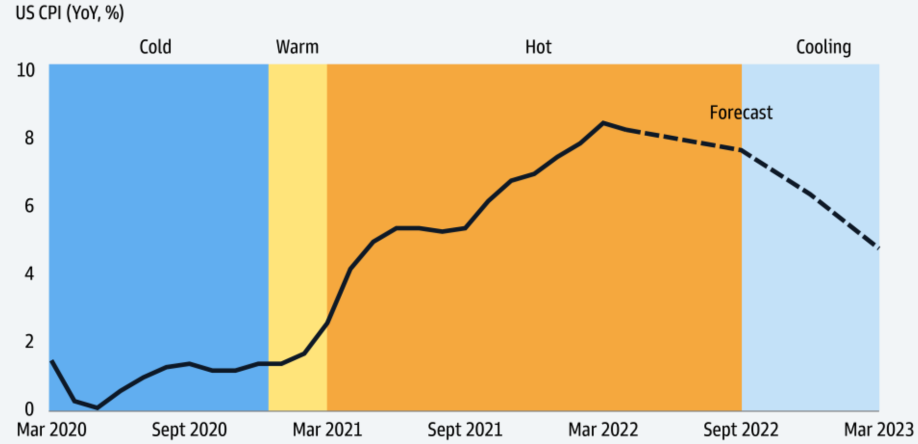
Elevated Inflation but Divergent Drivers across Regions



Source: Bloomberg, Haver Analytics, and Goldman Sachs Asset Management.

SOLUTIONS

We Expect Hot Inflation to Cool



Source: Bloomberg, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management.

Asset Class Performance in Different Inflation Environments

Asset Class Performance across Different Inflationary Environments (Ann., %)

Asset Class	Cold	Warm	Hot	Cooling	Unconditional
Equities	13	10	-8	10	7
Rates	5	3	-2	7	3
Credit	8	4	-4	6	4
Commodities	3	3	12	-2	4

Source: Bloomberg, Robert Shiller, and Goldman Sachs Asset Management.

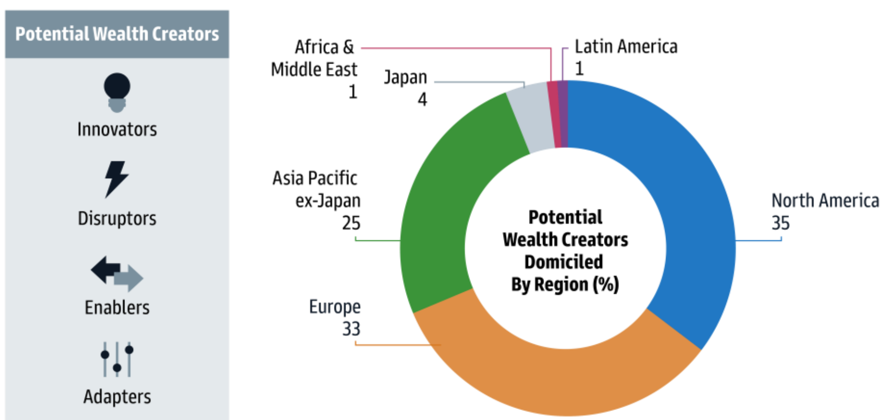
Bottom Left Section Notes: As of May 31, 2022. Z-scores are calculated based on the mean and the standard deviation computed from 2010 to 2019. Current values are the latest available. Definitions for wages, housing, supply chain, and energy can be found in the additional disclosures at the end of this document. Top Right Section Notes: As of May 31, 2022. Definitions for cold, warm, hot, and cooling can be found in the additional disclosures at the end of this document. Bottom Right Section Notes: As of May 31, 2022. "Equities" refers to the S&P 500 Index. "Credit" refers to the Bloomberg US Corporate Bond Index. "Rates" refers to the S&P 10Y US Treasury Note Futures Total Return Index from July 1982 to December 2021 and the Shiller total return estimate from February 1960 to July 1982. "Commodities" refers to the Bloomberg Commodities Total Return Index. The analysis is from February 1960 to December 2021, except Credit which starts from February 1973, and represents annualized real total return. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. **Past performance does not guarantee future results, which may vary.**

OUTLOOK

IDEA: Innovate, Disrupt, Enable, Adapt

Decelerating GDP growth, rising interest rates, and peaking profit margins suggest returns may be lower in the new market cycle. Looking ahead, we think the companies contributing to alpha will innovate, disrupt, enable, and adapt, and be diverse across global markets. We believe investors will need to be precise in identifying these wealth creators, especially in a world of narrow wealth creation. To put the past two decades in perspective, just 27% of Russell 3000 companies accounted for 140% of the market cap gain, and only 48% of S&P 500 companies outperformed US Treasury bills. Directionally, we think active management in ex-US equities and liquid alternatives can potentially navigate the new cycle skillfully.

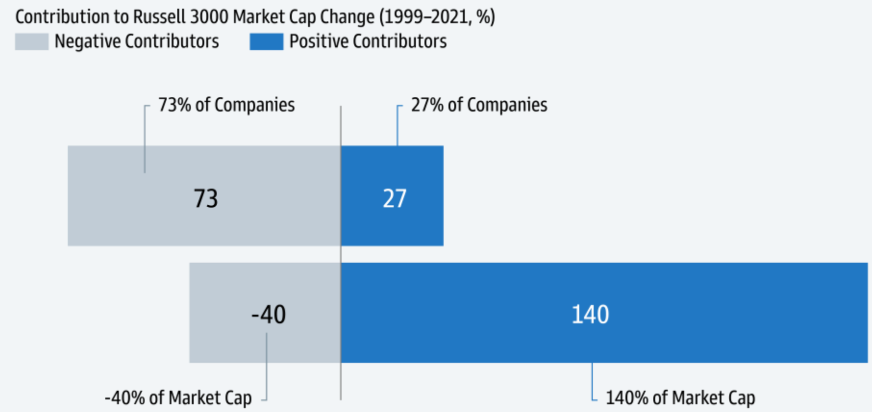
Potential Wealth Creators of the Future



Source: Bloomberg, FactSet, Goldman Sachs Global Investment Research, and Goldman Sachs Asset Management.

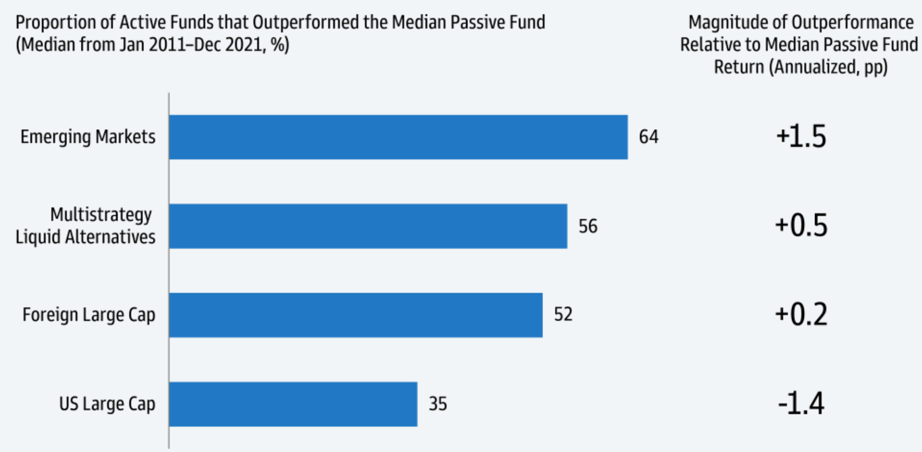
SOLUTIONS

The Wealth Creators of the Past



Source: Bloomberg and Goldman Sachs Asset Management.

Going Active for Alpha



Source: Morningstar and Goldman Sachs Asset Management.

Bottom Left Section Notes: As of October 13, 2021. Definitions for Potential Wealth Creators can be found in additional disclosures at the end of this document. Top Right Section Notes: As of December 31, 2021. Definitions for "Positive Contributors" and "Negative Contributors" can be found in the additional disclosures at the end of this document. Bottom Right Section Notes: As of December 31, 2021. "Proportion of Active Funds that Outperformed Median Passive Fund" refers to the median percentage of actively managed funds from January 2011 to December 2021 with returns in excess of their respective median passive ETF, over one-year rolling periods. "Magnitude of Outperformance Relative to Passive Fund Return" refers to the median magnitude of outperformance from January 2011 to December 2021 of active funds versus their respective median passive ETF return, on a one-year rolling basis. "Median" refers to the middle number in a numerical dataset sorted from lowest to highest. Please see additional disclosures at the end of this document. **Past performance does not guarantee future results, which may vary.**

CONTRIBUTORS

John Tousley, CFA
Global Head of Market Strategy

John leads the Market Strategy team, focusing on global capital markets, macro strategy, and implementation. He specializes in developing tactical and strategic investment insights within a risk-aware framework.

Candice Tse
Global Head of Strategic Advisory Solutions

Candice is the global head of Strategic Advisory Solutions, which delivers Goldman Sachs Asset Management's perspectives on global markets, strategic asset allocation, and innovative business practices.

James Ashley
International Head of Strategic Advisory Solutions

James is the head of the International Market Strategy team, with responsibility for providing actionable investment ideas and perspectives on the latest international market developments.

Maria Li, CFA
Senior Market Strategist

Maria is responsible for analyzing macroeconomic trends and financial market data to develop strategic asset class views. She delivers market insights to clients, guiding effective and informed investment decisions.

Davide Andaloro, CFA
Senior Market and Portfolio Strategist

Davide is responsible for analyzing macroeconomic dynamics and developing timely market views across different asset classes.

Simona Gambarini
Senior Market Strategist

Simona is part of the International Market Strategy team, responsible for delivering market and macroeconomic insights.

Romain Duvergé
Senior Market and Portfolio Strategist

Romain is part of the International Market Strategy team, responsible for delivering market and macroeconomic insights, as well as strategic asset allocation.

Wendy Lin, CFA
Senior Market Strategist

Wendy is responsible for helping clients contextualize the macro and market environment, and offering timely implementation ideas. Her areas of expertise include analyzing equity styles, valuation, and US pension trends.

Izabella Goldenberg, CFA
US Head of Portfolio Strategy

Izabella leads our US Portfolio Strategy team, responsible for helping clients construct portfolios with a specific emphasis on asset allocation and implementation strategies.

Adrien Forrest
Market and Portfolio Strategist

James Xia
Market Strategist

Grant Zangwill
Market Strategist

Source: Goldman Sachs Asset Management.

GLOSSARY

Equities

The **Dow Jones US Select Real Estate Securities Index** tracks companies that are both equity owners and operators of real estate in the US.

The **Euro Stoxx 600 Index** represents the performance of 600 publicly-traded companies based in one of 18 EU countries.

The **FTSE NAREIT Composite Total Return Index** is a free-float adjusted, market capitalization-weighted index of U.S. Equity and Mortgage REITs.

The unmanaged **MSCI EAFE Index** (unhedged) is a market capitalization weighted composite of securities in 21 developed markets.

The **MSCI Emerging Markets Equity Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

The **MSCI World High Dividend Yield Index** is designed to reflect the performance of equities in the MSCI World Index (excluding REITs) with higher dividend income.

The **MSCI World Index** is a free-float weighted equity index that includes developed world markets and does not include emerging markets.

The **Russell 2000 Index** measures the performance of the small-cap segment of the US equity universe. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

The **S&P 500 Index** is the Standard & Poor's 500 Composite Stock Prices Index of 500 stocks, an unmanaged index of common stock prices. The index figures do not reflect any deduction for fees, expenses or taxes. It is not possible to invest directly in an unmanaged index.

The **S&P Developed ex-US Property Index** measures the performance of real estate companies domiciled in countries outside the United States.

The **S&P Developed ex-US Small Cap Index** covers the smallest 15% of companies from developed countries (excluding the US) ranked by total market capitalization.

The **TOPIX Index** is a free-float adjusted market capitalization-weighted index that is calculated based on all the domestic common stocks listed on the Tokyo Stock Exchange First Section.

Fixed Income

The **Bloomberg Corporate Bond Index** measures the investment grade, fixed-rate, taxable corporate bond market, including USD denominated securities publicly issued by industrial, utility, and financial issuers.

The **Bloomberg Global High Yield Index** provides a broad-based measure of the global high-yield fixed income market.

The **Bloomberg Municipal Bond Index** covers the USD-denominated long-term tax-exempted bond market, including state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.

The **Bloomberg US Aggregate Bond Index** represents an unmanaged diversified portfolio of fixed income securities, including US Treasuries, investment grade corporate bonds, and mortgage backed and asset-backed securities.

The **Bloomberg US Aggregate Bond Index 1-3 Yr** is the 1-3 year component of the Bloomberg US Aggregate Bond Index.

The **Credit Suisse Leveraged Loan Index** tracks the investable leveraged loan market by representing tradable, senior-secured, US-dollar denominated, non-investment grade loans.

The **J.P. Morgan EMBI Global Composite Index** is an unmanaged index tracking dollar-denominated debt instruments issued in emerging markets.

The **S&P 10Y US Treasury Note Futures Total Return Index** tracks the performances of portfolios holding the nearest maturity Treasury note future contract.

The **US Treasury Bond** is a debt obligation backed by the United States government and its interest payments are exempt from state and local taxes. However, interest payments are not exempt from federal taxes.

Other

Alpha refers to returns in excess of the benchmark return.

Basis points (bps) refers to a unit represented by one hundredth of one percent.

The **Bloomberg Commodity Index** offers liquid exposure to physical commodities via futures contracts and aims to produce an attractive risk-return profile over time while ensuring that no single commodity or sector dictates the investment.

CAPE ratio refers to the Shiller Cyclically-Adjusted Price-to-Earnings ratio.

Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

The **Dow Jones US Select Real Estate Securities Index** tracks companies that are both equity owners and operators of real estate in the US.

Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serves as an indicator of a company's profitability.

The **Euro Area Housing Price Index** measures residential property market prices in the Euro area.

Gross Domestic Product (GDP) is the value of finished goods and services produced within a country's borders over one year.

The **HFRI Fund of Funds Composite Index** is an equal weighted, net of fee, index composed of approximately 800 fund-of-funds which report to HFR.

Income-oriented investments refers to investments where returns are primarily realized through fixed payments such as coupons.

The **Nationwide Building Society House Price Index** is designed to reflect the average change of house prices across the UK.

The **price-to-earnings ratio (P/E ratio)** is the ratio for valuing a company that measures its current share price relative to its per-share earnings (EPS).

Purchasing Managers' Index (PMI) reflects the economic trends of the manufacturing and service sectors of its respective country.

Risk assets refers to assets that carry a degree of price volatility.

The **S&P CoreLogic Case-Shiller Home Price Indices** are measures of U.S. residential real estate prices, tracking changes in the value of residential real estate nationally.

The **S&P GSCI Commodity Index** is a composite index of commodity sector returns, representing an unleveraged, long-only investment in commodity futures that is broadly diversified across the spectrum of commodities.

The **US Core Personal Consumption Expenditure (PCE) Price Index** provides a measure of the prices paid by people for domestic purchases of goods and services, excluding the prices of food and energy. The core PCE is the Federal Reserve's preferred inflation measure.

The **US Dollar Index (DXY)** is a measure of the value of the US dollar relative to the value of a basket of currencies (the euro, Japanese Yen, British Pound, Canadian Dollar, Swedish Krona, and Swiss Franc).

Yield refers to the earnings generated and realized on an investment over a particular period of time.

Volatility is a measure of variation of a financial instrument's price.

RISK DISCLOSURES

Investors should also consider some of the potential risks of alternative investments: Alternative Strategies. Alternative strategies often engage in leverage and other investment practices that are speculative and involve a high degree of risk. Such practices may increase the volatility of performance and the risk of investment loss, including the entire amount that is invested. Manager experience. Manager risk includes those that exist within a manager's organization, investment process or supporting systems and infrastructure. There is also a potential for fund-level risks that arise from the way in which a manager constructs and manages the fund. Leverage. Leverage increases a fund's sensitivity to market movements. Funds that use leverage can be expected to be more "volatile" than other funds that do not use leverage. This means if the investments a fund buys decrease in market value, the value of the fund's shares will decrease by even more. Counterparty risk. Alternative strategies often make significant use of over-the-counter (OTC) derivatives and therefore are subject to the risk that counterparties will not perform their obligations under such contracts. Liquidity risk. Alternative strategies may make investments that are illiquid or that may become less liquid in response to market developments. At times, a fund may be unable to sell certain of its illiquid investments without a substantial drop in price, if at all. Valuation risk. There is risk that the values used by alternative strategies to price investments may be different from those used by other investors to price the same investments. The above are not an exhaustive list of potential risks. There may be additional risks that should be considered before any investment decision.

Equity securities are more volatile than fixed income securities and subject to greater risks. Small and mid-sized company stocks involve greater risks than those customarily associated with larger companies.

International securities entail special risks such as currency, political, economic, and market risks.

Emerging markets securities may be less liquid and more volatile and are subject to a number of additional risks, including but not limited to currency fluctuations and political instability.

An investment in real estate securities is subject to greater price volatility and the special risks associated with direct ownership of real estate.

Investments in fixed-income securities are subject to credit and interest rate risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. This risk is higher when investing in high yield bonds, also known as junk bonds, which have lower ratings and are subject to greater volatility. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Although Treasuries are considered free from credit risk, they are subject to interest rate risk, which may cause the underlying value of the security to fluctuate.

Income from municipal securities is generally free from federal taxes and state taxes for residents of the issuing state. While the interest income is tax-free, capital gains, if any, will be subject to taxes. Income for some investors may be subject to the federal Alternative Minimum Tax (AMT).

Concentration in infrastructure-related securities involves sector risk and concentration risk, particularly greater exposure to adverse economic, regulatory, political, legal, liquidity, and tax risks associated with MLPs and REITs.

Investments in master limited partnerships ("MLPs") are subject to certain risks, including risks related to limited control and limited rights to vote, potential conflicts of interest, cash flow risks, dilution risks, limited liquidity and risks related to the general partner's right to force sales at undesirable times or prices.

Investing in REITs involves certain unique risks in addition to those risks associated with investing in the real estate industry in general. REITs whose underlying properties are concentrated in a particular industry or geographic region are also subject to risks affecting such industries and regions. The securities of REITs involve greater risks than those associated with larger, more established companies and may be subject to more abrupt or erratic price movements because of interest rate changes, economic conditions and other factors.

The currency market affords investors a substantial degree of leverage. This leverage presents the potential for substantial profits but also entails a high degree of risk including the risk that losses may be similarly substantial. Such transactions are considered suitable only for investors who are experienced in transactions of that kind. Currency fluctuations will also affect the value of an investment.

Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity.

The above are not an exhaustive list of potential risks. There may be additional risks that should be considered before any investment decision.

Index Benchmarks

Indices are unmanaged. The figures for the index reflect the reinvestment of all income or dividends, as applicable, but do not reflect the deduction of any fees or expenses which would reduce returns. Investors cannot invest directly in indices.

The indices referenced herein have been selected because they are well known, easily recognized by investors, and reflect those indices that the Investment Manager believes, in part based on industry practice, provide a suitable benchmark against which to evaluate the investment or broader market described herein.

GENERAL DISCLOSURES

Page 10 Bottom Section Notes: The hypothetical return breakeven level is calculated by dividing the yield of each maturity by the bond's respective duration, and it represents the maximum amount that yields can rise over the next 12 months before total returns are negative.

Page 11 Bottom Section Notes: "Spot return" refers to return generated from changes in spot prices. "Roll return" refers to return generated from convergence of spot prices and futures prices. "Collateral Return" refers to return generated from putting up collateral on futures positions.

Page 12 Top Right Section Notes: The events included under "Political" use time frames that are two months before and after each of the following election periods: Winston Churchill's election upset (July 4, 1945 to July 26, 1945); Harry Truman's election upset (November 1, 1948 to November 3, 1948); Donald Trumps' election upset (November 7, 2016 to November 9, 2016); the 2018 Italian Election (March 3, 2018 to March 5, 2018); and the 2018 Brazilian Election (October 6, 2018 to October 8, 2018). The events included under "Geopolitical" use the following time frames: World War II (September 1, 1939 to September 2, 1945); the Gulf War (August 2, 1990 to February 28, 1991); the September 11th attacks (September 10, 2001 to September 17, 2001); the US-China Trade War (April 3, 2018 to January 15, 2020); the COVID-19 pandemic (January 17, 2020 to December 11, 2020); and the Russia-Ukraine war (February 18, 2022 to May 31, 2022, the latest data available). The events included under "Recessionary" use the following time frames: The stagflation period in the 1970s (December 31, 1972 to October 31, 1974); the recession in the 1980s (October 31, 1980 to August 31, 1982); the recession in 1990 (June 30, 1990 to October 31, 1990); the Dot-Com Bubble (February 29, 2000 to October 31, 2002); and the Global Financial Crisis (September 30, 2007 to January 31, 2009). As much available data as possible was used for each event.

Page 12 Bottom Right Section Notes: "Geopolitical" refers to the same events as listed above. "Balanced" refers to an illustrative portfolio that is 60% S&P 500, 40% US Agg; "Alternatives" 50% S&P 500, 10% Daily Liquid Alternatives, 40% US Agg; "Income" 30% S&P 500, 15% Global High Yield, 15% Global High Dividend, 40% US Agg; "Real Assets" 30% S&P 500, 15% US REITs, 15% S&P GSCI, 40% US Agg. "S&P 500" refers to the S&P 500 Index. "US Agg" refers to the Bloomberg US Aggregate Bond Index. "Daily Liquid Alternatives" refers to the HFRI Fund of Funds composite Index. "Global High Yield" refers to the Bloomberg Global High Yield Total Return Index. "Global High Dividend" refers to the MSCI World High Dividend Yield Index. "US REITs" refers to the FTSE NAREIT Composite Total Return Index. "S&P GSCI" refers to the S&P GSCI Total Return Index. Illustrative portfolio returns are hypothetical based on the historical returns of the underlying indices. No representation is made that an investor will achieve similar results. The result will vary based on market conditions and your allocation.

Page 14 Top Right Section Notes: "Above-trend GDP growth" refers to GDP growth that is above potential GDP, which is the long-run theoretical growth of what an economy could sustainably produce when it fully employs its available economic resources. "Value tilt" refers to a preference for value-style equities, or equities that are perceived to trade below their fundamental values. "Structural demand" refers to long-term economic tailwinds supporting demand. "Relative value" refers to the attractiveness of currencies in relation to other currencies.

Page 14 Bottom Right Section Notes: "MSCI EM" refers to the MSCI Emerging Markets Index. "DJ Corporate" refers to the Dow Jones Corporate Bond Index. "Gold" refers to the spot price of gold. "DXY" refers to the US Dollar Index. The nine Federal Reserve hiking cycles used include February 1972 to July 1974, January 1977 to April 1980, July 1980 to June 1981, February 1983 to August 1984, December 1986 to March 1989, January 1994 to February 1995, May 1999 to May 2000, May 2004 to June 2006, and November 2015 to December 2018.

Page 15 Bottom Left Section Notes: "Wage" refers to the wage growth year-over-year, as represented by Weekly Earnings (All Private Non-Farm Employees), Weekly Earnings incl. Bonus (Whole Economy), Euro area Negotiated Wages for the US, UK and the Euro area respectively. "Housing" refers to the housing price growth year-over-year, as represented by S&P/Case-Shiller Home Price, Nationwide Building Society House Price, and Euro area Housing Price index for the US, UK, and Euro area respectively. "Supply Chain" refers to Manufacturing Suppliers' Delivery Times PMI and "Energy" refers to Energy CPI. The closer the vertex is to the respective driver, the more impact that driver has had on inflation.

Page 15 Top and Bottom Right Section Notes: "Cold" refers to falling annual CPI inflation (negative last 12-month average) with levels below 2%. "Hot" refers to rising inflation (positive last 12-month average) with levels above 4%. "Cooling" refers to falling inflation (negative last 12-month average) with levels above 4%. "Warm" refers to all the rest (inflation below 4% and rising inflation below 2%).

Page 16 Bottom Left Section Notes: Potential Wealth Creators consist of 500 companies selected in a framework developed by Goldman Sachs Global Investment Research to identify companies considered to provide value creation and growth in a post-pandemic market cycle. Four categories exist in the framework: innovators, disruptors, enablers, and adapters. Innovators are broadly defined as companies using new technologies. Disruptors are broadly defined as utilizing technology to disrupt other industries. Enablers are broadly defined as companies facilitating social and economic change. Adapters are broadly defined as companies adapting business models to generate higher returns.

Page 16 Top Right Section Notes: Chart groups Russell 3000 constituents since December 31, 1999 into companies that added to total market capitalization gain for the index and those that detracted from total market capitalization gain for the index. Positive contributors refer to companies ending December 31, 2021 in the index with a market capitalization greater than they entered the Russell 3000 with. All other companies, whether leaving the index before December 31, 2021, or closing on December 31, 2021 with a market capitalization less than their market capitalization at inception to the index, are classified as negative contributors.

Page 16 Bottom Right Section Notes: Total number of passive funds over time period analyzed for Emerging Markets, Multistrategy Liquid Alternatives, Foreign Large Cap, and US Large Cap, are 114, 3, 80, and 206, respectively, as of December 2021.

Page 23 Relative Asset Class Calendar-Year Performance Notes: "Bank Loans" are represented by the Credit Suisse Leveraged Loan Index. "Commodities" are represented by the S&P GSCI Commodity Index. "Emerging Market (EM) Debt" is represented by the JPM EMBI Global Composite Index. "Emerging Market (EM) Equity" is represented by the MSCI Emerging Markets Index. "Hedge Funds" are represented by the HFRI Fund of Funds Index. "High Yield" is represented by the Bloomberg Global High Yield Index. "Int. Equity" is represented by the MSCI EAFE Index. "Int. Real Estate" is represented by the S&P Developed ex-US Property Index. "Int. Small Cap" is represented by the S&P Developed ex-US Small Cap Index. "US Agg. Bonds" are represented by the Bloomberg US Aggregate Bond Index. "US Large Cap" is represented by the S&P 500 Index. "US Municipal" is represented by the Bloomberg Municipal Bond Index. "US Real Estate" is represented by the Dow Jones US Select Real Estate Securities Index. "US Small Cap" is represented by the Russell 2000 Index.

GENERAL DISCLOSURES

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Views and opinions expressed are for informational purposes only and do not constitute a recommendation by Goldman Sachs Asset Management to buy, sell, or hold any security. Views and opinions are current as of the date of this document and may be subject to change, they should not be construed as investment advice.

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In addition to the Market Know-How, we offer timely market updates and implementation on asset classes. For additional content, please visit us at gsam.com.

MARKET MONITOR: WEEKLY MARKET UPDATES

Sneak Peak

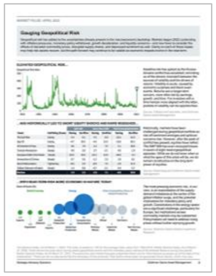
Taking a Bite Out of Your Burger

TINA Turnaround

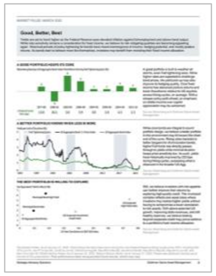
Strength in Numbers

MARKET PULSE: MONTHLY MARKET AND THEME UPDATES

Recession: Signal or Noise?



Gauging Geopolitical Risk



Good, Better, Best

Tightening Times

A Long-term Partnership

Strategic Advisory Solutions provides a comprehensive suite of integrated solutions designed to help our clients grow and enhance their businesses. Our global team of experienced strategists aims to deliver in-depth expertise to help clients understand dynamic markets, design well-diversified strategic portfolios, and implement industry best practices through programs tailored to each organization. We partner with our clients to develop actionable solutions to help them achieve their goals.

For more information, contact us at StrategicAdvisorySolutions@gs.com.

RELATIVE ASSET CLASS CALENDAR-YEAR PERFORMANCE

Best Performance

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 YTD
									Commodities: **47.0%**
									Cash: **0.1%**
					Cash: **2.0%**				Bank Loans: **-2.4%**
					US Municipal: **1.3%**				Hedge Funds: **-4.6%**
					Bank Loans: **1.1%**				US Municipal: **-7.5%**
					US Agg. Bonds: **0.0%**				US Agg. Bonds: **-8.9%**
				EM Equity: **37.8%**	Hedge Funds: **-4.0%**				High Yield: **-10.1%**
		Int. Small Cap: **5.9%**		Int. Small Cap: **32.3%**	High Yield: **-4.1%**				Int. Equity: **-11.3%**
		US Real Estate: **4.5%**	US Small Cap: **21.3%**	Int. Equity: **25.0%**	US Real Estate: **-4.2%**		US Small Cap: **20.0%**	US Real Estate: **45.9%**	EM Equity: **-11.7%**
US Small Cap: **38.8%**	US Real Estate: **31.9%**	US Municipal: **3.3%**	High Yield: **14.3%**	Int. Real Estate: **22.1%**	EM Debt: **-4.3%**		EM Equity: **18.7%**	Commodities: **40.4%**	Int. Real Estate: **-11.7%**
US Large Cap: 32.4%	**13.7%**	**1.4%**	**12.0%**	**21.8%**	**-4.4%**	**31.5%**	**18.4%**	**28.7%**	**-12.8%**
Int. Small Cap: **26.1%**	US Municipal: **9.1%**	EM Debt: **1.2%**	EM Equity: **11.6%**	US Small Cap: **14.6%**	Int. Real Estate: **-8.7%**	US Small Cap: **25.5%**	Int. Small Cap: **14.2%**	US Small Cap: **14.8%**	US Real Estate: **-14.5%**
Int. Equity: **22.8%**	EM Debt: **7.4%**	US Agg. Bonds: **0.5%**	Commodities: **11.4%**	High Yield: **10.4%**	US Small Cap: **-11.0%**	Int. Small Cap: **24.5%**	Hedge Funds: **10.9%**	Int. Equity: **11.3%**	Int. Small Cap: **-14.7%**
Hedge Funds: **9.0%**	US Agg. Bonds: **6.0%**	Cash: **0.2%**	EM Debt: **10.2%**	EM Debt: **10.3%**	Int. Equity: **-13.8%**	US Real Estate: **23.1%**	Int. Equity: **7.8%**	Int. Small Cap: **9.5%**	EM Debt: **-15.0%**
Int. Real Estate: **7.7%**	US Small Cap: **4.9%**	Hedge Funds: **-0.3%**	Bank Loans: **9.9%**	Hedge Funds: **7.8%**	Commodities: **-13.8%**	Int. Equity: **22.0%**	US Agg. Bonds: **7.5%**	Int. Real Estate: **9.4%**	US Small Cap: **-16.6%**
High Yield: **7.3%**	Int. Real Estate: **3.4%**	Bank Loans: **-0.4%**	US Real Estate: **6.6%**	Commodities: **5.8%**	EM Equity: **-14.2%**	Int. Real Estate: **20.6%**	High Yield: **7.0%**	Hedge Funds: **6.2%**	
Bank Loans: **6.2%**	Hedge Funds: **3.4%**	Int. Equity: **-0.8%**	Int. Small Cap: **3.7%**	US Municipal: **5.4%**	Int. Small Cap: **-18.5%**	EM Equity: **18.9%**	EM Debt: **5.3%**	Bank Loans: **5.4%**	
US Real Estate: **1.3%**	Bank Loans: **2.1%**	Int. Real Estate: **-1.2%**	US Agg. Bonds: **2.6%**	Bank Loans: **4.2%**		Commodities: **17.6%**	US Municipal: **5.2%**	US Municipal: **1.5%**	
Cash: **0.2%**	Cash: **0.2%**	High Yield: **-2.7%**	Int. Real Estate: **1.6%**	US Real Estate: **3.8%**		EM Debt: **15.0%**	Bank Loans: **2.8%**	High Yield: **1.0%**	
Commodities: **-1.2%**	High Yield: **0.0%**	US Small Cap: **-4.4%**	Int. Equity: **1.0%**	US Agg. Bonds: **3.5%**		High Yield: **12.6%**	Cash: **0.7%**	Cash: **0.1%**	
US Agg. Bonds: **-2.0%**	EM Equity: **-1.8%**	EM Equity: **-14.6%**	Hedge Funds: **0.5%**	Cash: **1.1%**		US Agg. Bonds: **8.7%**	Int. Real Estate: **-5.3%**	US Agg. Bonds: **-1.5%**	
EM Equity: **-2.3%**	Int. Small Cap: **-3.4%**	Commodities: **-32.9%**	Cash: **0.5%**			Hedge Funds: **8.4%**	US Real Estate: **-11.2%**	EM Debt: **-1.8%**	
US Municipal: **-2.6%**	Int. Equity: **-4.9%**		US Municipal: **0.2%**			Bank Loans: **8.2%**	Commodities: **-23.7%**	EM Equity: **-2.2%**	
EM Debt: **-5.3%**	Commodities: **-33.1%**					US Municipal: **7.5%**			
						Cash: **2.3%**			

Worst Performance

Source: Goldman Sachs Asset Management. As of May 31, 2022. This example is for illustrative purposes only to show the performance dispersion between various asset classes over time and the potential importance of diversification. Diversification is the process of allocating capital in a way that reduces the exposure to any one particular asset or risk. **Past performance does not guarantee future results, which may vary.** Diversification does not protect an investor from market risks and does not ensure a profit. Please see additional disclosures on page 20 of this document.

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